

09/674925

1/7

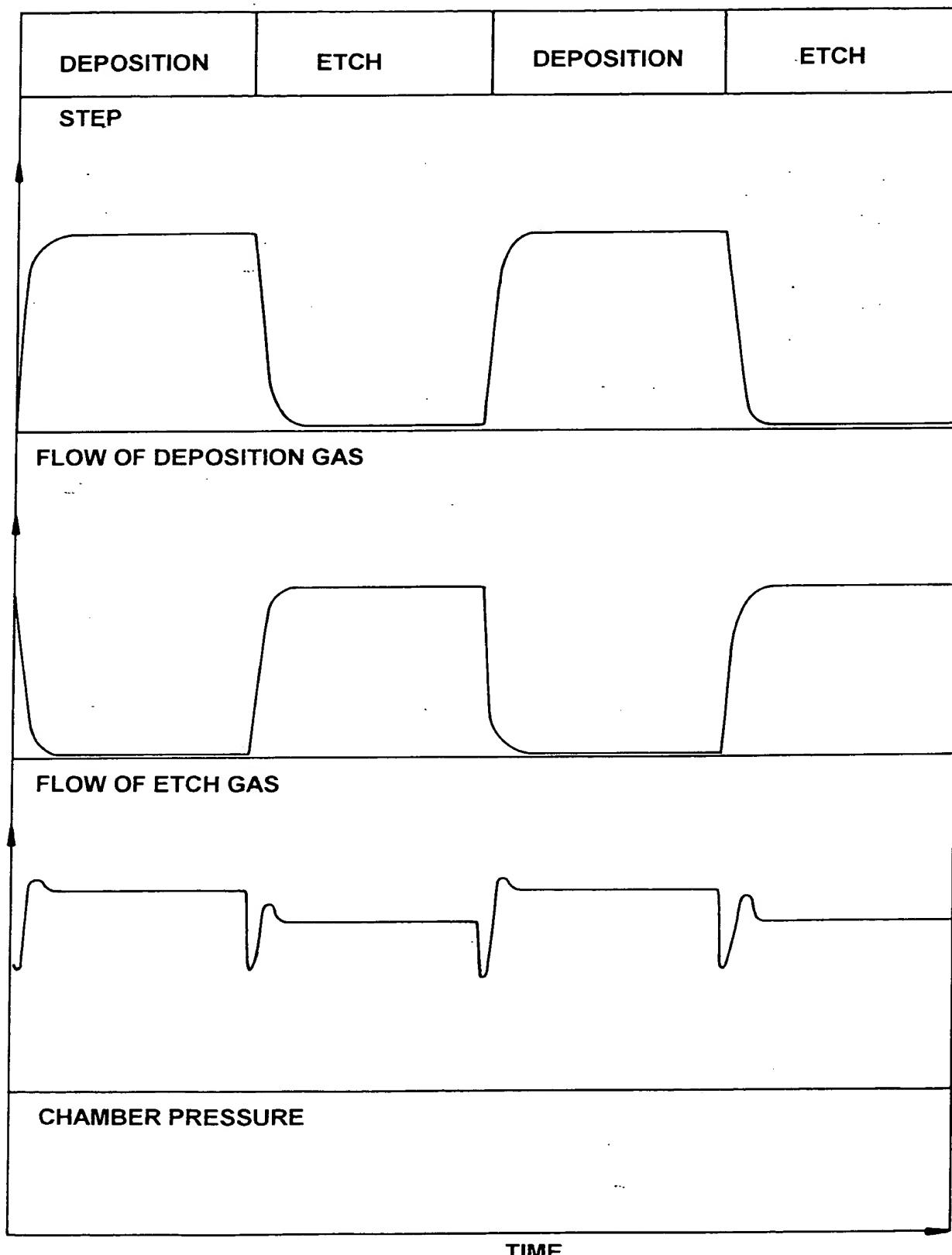


Fig. 1

09/674925

2/7

| | | | |
|------------|------|------------|------|
| DEPOSITION | ETCH | DEPOSITION | ETCH |
| STEP | | | |

| | | | | | | | |
|---|---------------------------|---|---------------------------|---|---------------------------|---|---------------------------|
| DRIVE MATCHING UNIT CAPACITORS TO PRE-DETERMINED VALUES FOR DEPOSITION | <u>AUTO MATCH ENABLED</u> | DRIVE MATCHING UNIT CAPACITORS TO PRE-DETERMINED VALUES FOR ETCH | <u>AUTO MATCH ENABLED</u> | DRIVE MATCHING UNIT CAPACITORS TO PRE-DETERMINED VALUES FOR DEPOSITION | <u>AUTO MATCH ENABLED</u> | DRIVE MATCHING UNIT CAPACITORS TO PRE-DETERMINED VALUES FOR ETCH | <u>AUTO MATCH ENABLED</u> |
|---|---------------------------|---|---------------------------|---|---------------------------|---|---------------------------|

MATCHING UNIT STATUS

TIME

Fig. 2

3/7

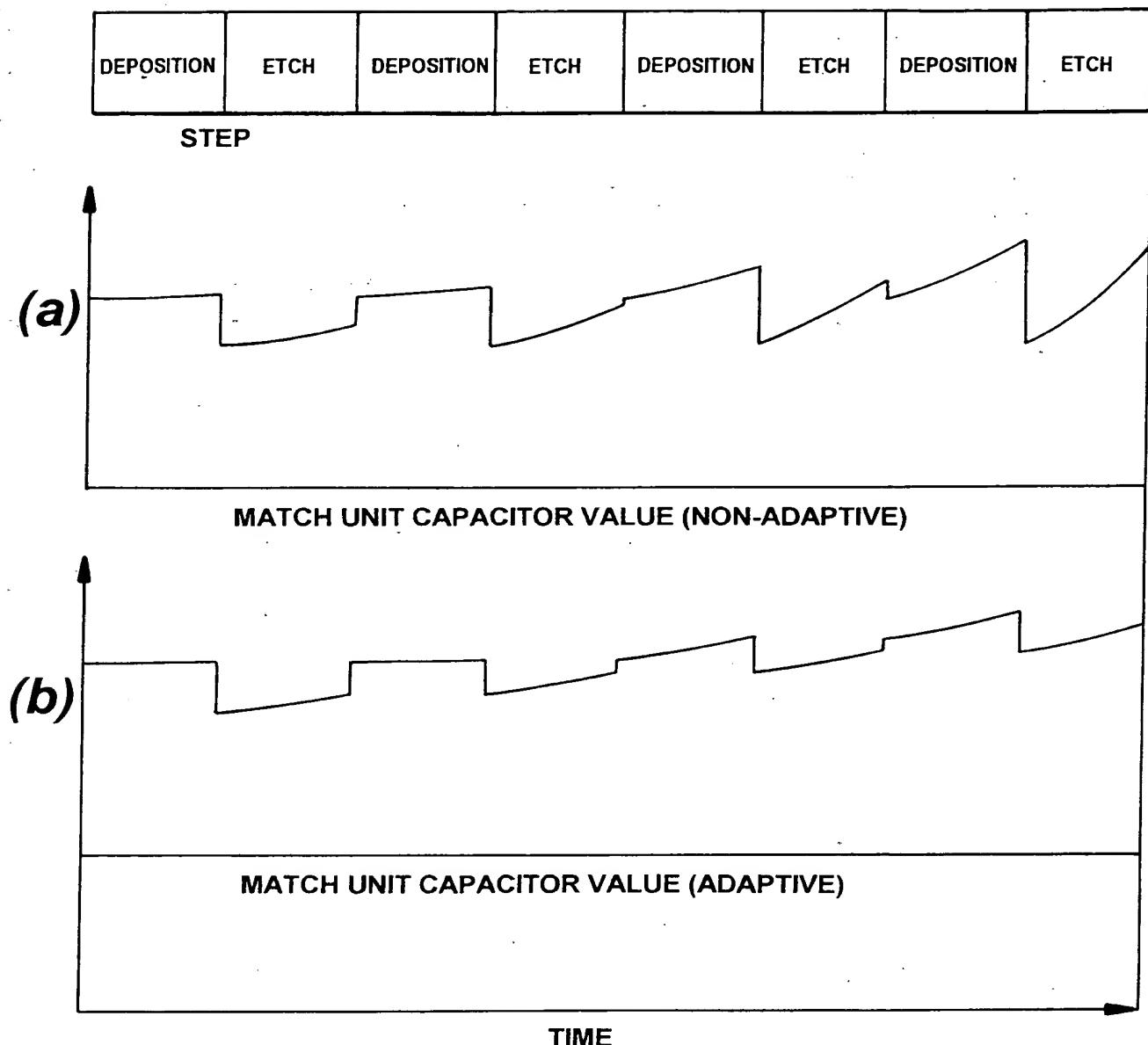


Fig. 3

4/7

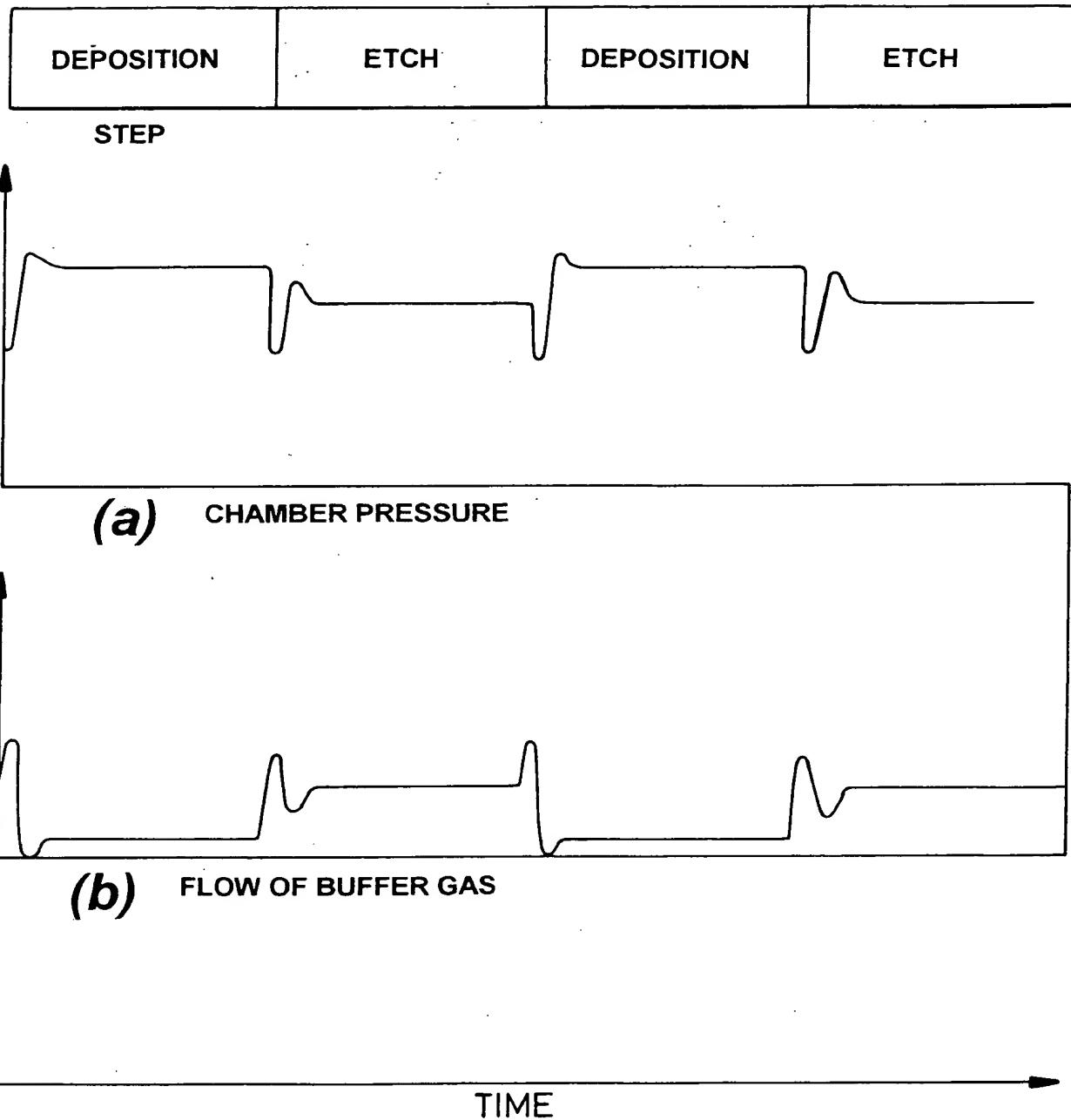


Fig. 4

5/7

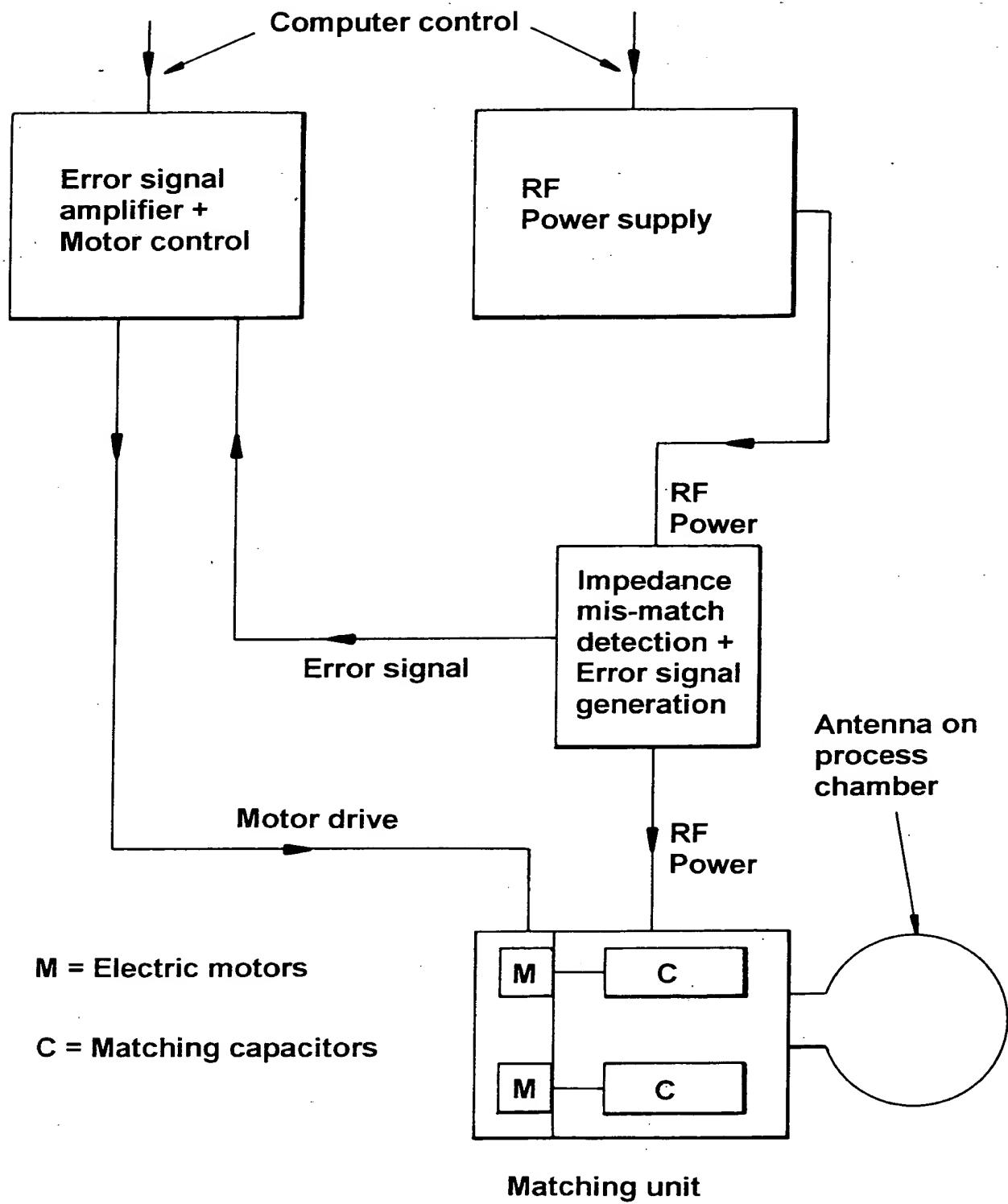


Fig. 5

6/7

RF power fed to circuit via co-axial cable and connector, impedance typically 50Ω

Capacitor to primarily match imaginary part of impedance

Dielectric section of process chamber

Capacitor to primarily match real part of impedance

Plasma formed by inductive coupling of R.F. Power

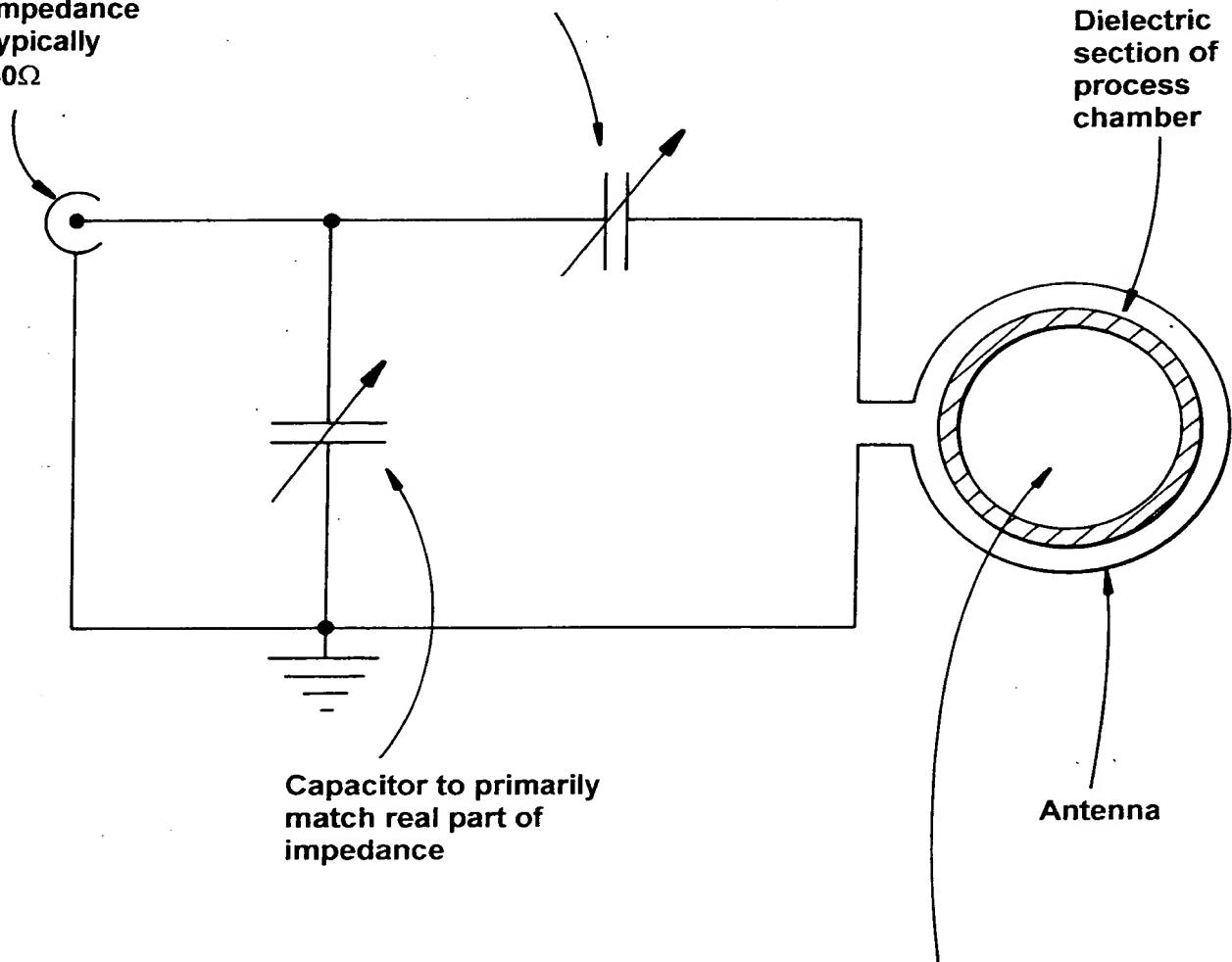
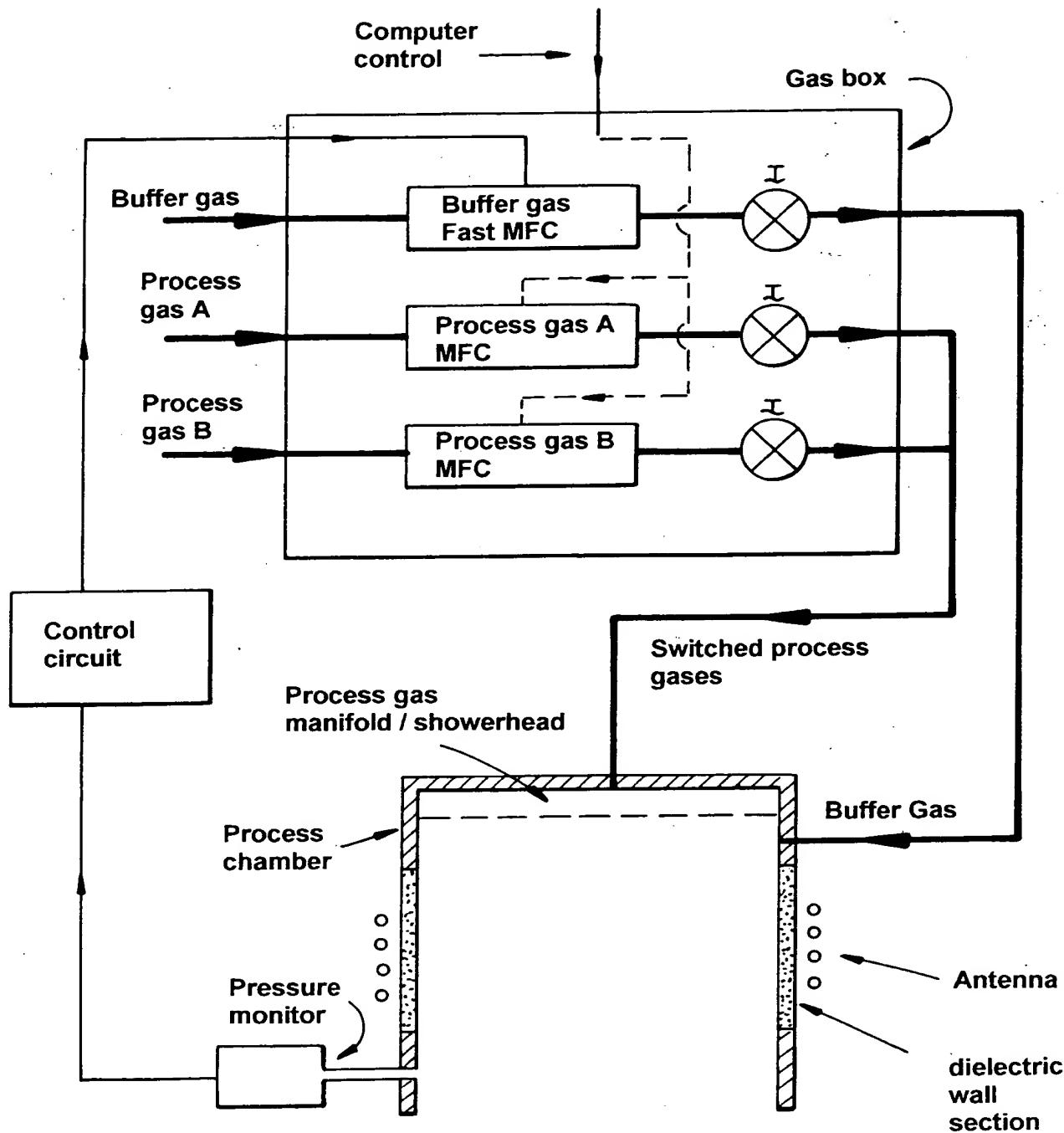


Fig. 6

7/7



MFC = Mass flow controller

I = Isolation valve (if required)

Fig. 7